

CLAIMS

1. A tag comprising at least one detachable portion A, having a first function in a state where said portion A remains attached, and shifting to a second function different from said first function when said portion A is detached.

2. A tag according to claim 1, wherein said portion A has a function of suppressing said second function.

3. A tag according to claim 1, wherein
a tag portion B other than said detachable portion A comprises a first memory portion for storing data,

said first function includes a function of writing data in a first memory region provided in said first memory portion, and

said second function includes a function of writing data in a second memory region other than said first memory region.

4. A tag according to claim 3, wherein
said portion A comprises a second memory portion and
said second memory portion has a specification data memory region for storing specification data for specifying a given memory region provided in said first memory portion.

5. A tag according to claim 4, wherein said memory region is specified based on presence or absence of a sign stored in said specification data memory region or on a content thereof.

6. A tag according to claim 5, wherein said sign serves as a criterion for judging whether or not said portion A has been detached.

7. A tag according to claim 6, wherein said sign is composed of a combination of a tag ID for identifying an individual tag and a keyword for specifying the memory region in said first memory portion.

8. A method for managing merchandise distribution using a tag as recited in any one of claims 1 to 7, said method comprising the steps of:

affixing or attaching said tag in an attached state to merchandise or an object belonging to the merchandise and writing first data related to a process of manufacturing said merchandise in said tag; and

detaching, at a stage of selling the merchandise, a part of the tag at a stage of manufacturing the merchandise and writing second data related to a process of selling said merchandise in a remaining portion of the tag after the detachment.

9. A method according to claim 8, wherein

said first data includes any of a tag ID for recognition of an individual tag, a maker code for recognition of a manufacturer's name, a manufacturing number for recognition of an individual item of merchandise, and a key code and

said second data includes either of a shop code for recognition of a seller's name and a purchase date for recognition of a sales date.

10. A system for managing merchandise distribution using a tag as recited in any one of claims 1 to 7, said system comprising:

a first device used at a stage of manufacturing merchandise to affix or attach the tag in an attached state to merchandise or an object belonging to the merchandise and write first data related to a process of manufacturing said merchandise in said tag; and

a second device used at a stage of selling the merchandise to write second data related to a process of selling said merchandise in a remaining portion of the tag after a part of the tag at said stage of manufacturing said merchandise has been detached.

11. A system according to claim 10, further having a management device for associating said first and second devices with each other.

12. A method for managing a slip for service by using a tag as recited in any one of claims 1 to 7, said method comprising the steps of:

affixing or attaching the tag to a slip related to service at a stage of receiving an order of the service or writing first data related to the service to be provided in the slip with the tag attached thereto; and

detaching, at a stage of providing the service, a part of the tag at said stage of receiving the order of the service and writing second data related to a step of providing the service in a remaining portion of the tag after the detachment.

13. A tag according to claim 1, wherein
said first function includes a function of performing at least writing of data with respect to the first memory portion for storing data which is provided in said detachable portion A and

said second function includes a function of performing at least the writing of data with respect to the second memory portion for storing data provided in said remaining portion B of the tag.

14. A method for managing merchandise distribution using a tag as recited in claim 1 or 13, said method comprising the steps of:

affixing or attaching, at a stage of manufacturing merchandise, the tag in an attached state to the merchandise or an object belonging to the merchandise, writing first data related to a process of manufacturing said merchandise in said tag, and then detaching one of the detachable portions of said tag to arbitrarily hold the detached portion; and

writing, at a stage of selling the merchandise, second data related to a process of selling said merchandise in the tag in a state at an end time of said stage of manufacturing the merchandise and further detaching a detachable part of tag from said tag to arbitrarily hold the detached tag.

15. A method according to claim 14, wherein

said first data includes data selected from the group consisting of a tag ID for recognition of an individual tag, a maker code for recognition of a manufacturer's name, and a manufacturing number for recognition of an individual item of merchandise and

said second data includes data selected from the group consisting of the tag ID for the recognition of the individual tag, a shop code for recognition of a seller's name, and a purchase date for recognition of a sales date.

16. A method according to claim 15, further comprising the step of:

searching for data written in the tag detached at said stage of manufacturing the merchandise and data written in the tag detached at said stage of selling the merchandise by using said tag ID as a key for comparison therebetween.

17. A tag comprising at least one physically detachable portion, wherein said detachable portion and a whole or part of a portion of the tag other than said detachable portion are mutually laminated in layers or wholes or parts of said detachable portions are mutually laminated in layers, or alternatively, wholes or parts of said portions laminated in layers are mutually laminated.

18. A tag comprising at least one physically detachable portion, wherein

said detachable portion and a portion of the tag other than said detachable portion have visually different characteristic features.

19. A tag comprising at least one physically detachable portion, wherein

said detachable portion and a portion of the tag other than said detachable portion have characteristic configurations.

20. A tag according to any one of claims 17 to 19, wherein said detachable portion and the portion of the tag other than said detachable portion have respective memory regions in which data can be written and stored or from which data can be read individually.

21. A tag comprising 1 to N (N is an integer not less than 2) detachable portions, wherein only a portion of the tag which finally remains after detachment of said detachable portion or portions is provided with a control portion for controlling the other portion or portions of the tag.

22. A substrate having an electronic component mounted thereon to control an operation of a tag comprising at least one detachable portion A, having a first function in a state in which said portion A remains attached, and shifting to a second function different from said first function when said portion A is detached, said substrate comprising:

at least one physically detachable portion.

23. A substrate according to claim 22, wherein said electronic component includes at least:

a first electronic circuit associated with an input/output interface portion which performs transmission and reception between itself and a reader/writer device for reading data from said tag or writing data in said tag;

a second electronic circuit associated with a control portion which performs a control operation for reading data from said tag or writing data in said tag; and

a third electronic circuit associated with a memory portion which stores therein said data.

24. A substrate according to claim 23, wherein said third electronic circuit comprises a plurality of physically separated memory circuits and

at least one of the plurality of memory circuits is mounted on said portion A, while at least one of the plurality of memory circuits is mounted on said portion B.

25. A substrate according to claim 22, wherein a portion at which said portions A and B are detached from each other has a single or plurality of holes bored therein.

26. A substrate according to claim 25, wherein said plurality of holes are bored as a perforation.

27. A substrate according to claim 26, wherein, at the portion at which said portions A and B are detached from each other, a connecting portion of said perforation is provided with a signal line, a power line, or a ground line extending in a direction intersecting a direction in which the connecting portion extends.

28. A package for covering a substrate from outside thereof, said substrate having an electronic component mounted thereon to operate a tag comprising at least one detachable portion A, having a first function in a state in which said portion A remains attached, and shifting to a second function different from said first function when said portion A is detached, said package comprising:

at least one physically detachable portion.

29. A package according to claim 28, wherein a portion at which said portions A and B are detached from each other has a single or plurality of holes bored therein.

30. A package according to claim 29, wherein said plurality of holes are bored as a perforation.

31. A package according to claim 30, wherein said plurality of holes are not penetrating said package.

32. A tag comprising:

a substrate as recited in any one of claims 22 to 27; and

a package as recited in any one of claims 28 to 31.

33. A tag having a single or plurality of physically detachable portions A, said tag comprising:

an input/output interface portion for performing transmission/reception and modulation/demodulation of a data signal;

a control portion for specifying a memory region in which data inputted from said input/output interface portion is to be written or a memory region from which data to be outputted to said input/output interface portion is read based on whether or not said portion A has been detached from a main body of the tag or on a position in the main body of the tag at which said detached portion A was located before detachment thereof; and

a single or plurality of memory portions each having at least one memory region that has been specified.

34. A tag according to claim 33, wherein at least one memory portion is present in said portion A or in each of said portions A and at least one memory portion is present in a portion B of the tag other than said detachable portion or portions A.

35. A tag according to claim 34, wherein said control portion has a detachment judging circuit for judging whether or not said

portion A has been detached or the position in the main body of the tag at which said detached portion A was located before the detachment thereof.

36. A tag according to claim 35, wherein said detachment judging circuit judges whether or not said portion A has been detached by sensing whether or not any of a data signal line connected to the memory portion present in said portion A, a ground line, and a power line is in a high impedance state.

37. A tag according to claim 36, wherein, when a potential at a point (P1) at which the data signal line connected to the memory portion present in said portion A is substantially connected to the detachment judging circuit has shown a middle value between a potential approximate to a power source potential (VC) and a potential approximate to a ground (GND) potential for a specified period, said detachment judging circuit senses that said data signal line is in the high impedance state and judges that said portion A has been detached.

38. A reader/writer device, which writes data in a tag as recited in any one of claims 1 to 7 or any one of claims 33 to 37 or reads data from said tag.